Abstracts

A Micron-Thickness, Planar Schottky Diode Chip for Terahertz Applications with Theoretical Minimum Parasitic Capacitance

W.L. Bishop, E.R. Meiburg, R.J. Mattauch, T.W. Crowe and L. Poll. "A Micron-Thickness, Planar Schottky Diode Chip for Terahertz Applications with Theoretical Minimum Parasitic Capacitance." 1990 MTT-S International Microwave Symposium Digest 90.3 (1990 Vol. III [MWSYM]): 1305-1308.

The design and fabrication of a novel planar Schottky diode with greatly reduced shunt capacitance for millimeter and submillimeter wave applications is described. The dominant pad-to-pad shunt capacitance is minimized by replacing the substrate GaAs with a low-dielectric substitute. This replacement substrate can be easily removed by the user after the device is soldered into the mixer circuit. This will yield minimum possible pad-to-pad shunt capacitance.

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